

DRAFT AMENDMENT FOR NEPA COVERAGE FOR
COUGAR LAKE
INTAKE STRUCTURE MODIFICATIONS
WILLAMETTE TEMPERATURE CONTROL
MCKENZIE SUBBASIN, OREGON

1. An Environmental Assessment (EA) was prepared for the Cougar Lake Intake Structure Modifications and released for public and agency review under Public Notice CENPW-EC-E-99-04 on July 15, 1999. A Finding of No Significant Impact was signed on November 30, 1999. This EA supplemented the Final Environmental Impact Statement on the Willamette Temperature Control Project, Cougar and Blue River Lakes, released in April 1995.

2. Project construction activities, i.e., drawdown of the reservoir through the newly opened diversion tunnel, resulted in more turbidity than had been anticipated and described in the FEIS and the 1999 EA. Corps regulations for implementing NEPA, ER200-2-2,13(d), provides for publishing additional supplemental information documents on long-term or complex Environmental Impact Statements (EISs) to keep the public informed. It was decided to prepare a supplemental information report (SIR) to address turbidity and to investigate whether the turbidity had caused significant impacts to the river environment. This amendment to the 1999 EA addresses effects of the unexpected turbidity from 2002, the management option to control turbidity during construction in 2003 and 2004, and new information.

3. Proposed Action. The proposed action is to continue the construction of intake structure modification at Cougar Dam, while operating the reservoir in a manner to minimize turbidity in the South Fork McKenzie and McKenzie Rivers during the spring fly-fishing season (April-May).

To reduce the intensity or duration of another high turbidity event during April such as occurred in 2002, the Corps investigated possible operational changes. The options considered included 1) increasing the drawdown rate below pool elevation 1,532 feet; 2) adjusting the winter flood control pool elevation; and 3) adjusting the target date to reach construction pool of 1,400 feet. Advantages and disadvantages of the options are described in the SIR.

The preferred alternative for operation of Cougar reservoir during the winter and spring of 2003 and 2004 is the low pool/6 feet/day drawdown option. The Corps will attempt, as much as possible, to maintain the pool at elevation 1,400 feet during the winter. When the pool exceeds 1,400 feet, then drawdown will be at the 6 feet/day rate. If the winter is wet, or if heavy rain occurs during the late winter/early spring, the pool elevation will be above 1,400 feet for short periods. Analysis and observation of conditions during the 3 feet/day drawdown has lead the Corps to consider a faster drawdown of up to 6 feet/day. The Corps geotechnical staff believes that a drawdown rate higher than 6 feet/day could cause excessive slumping of shoreline and possible damage to the dam.

4. Affected Environment. The general affected environment is the same as that described in the previous EIS and EA. Some specific elements, such as recreation-related commerce and natural turbidity of the South Fork McKenzie and McKenzie Rivers, were not described. The presence

of Oregon chub in the lower McKenzie River was discovered in 2000. DDT has been discovered in sediments exposed during reservoir drawdown.

Recreation-related Commerce. A description of recreation-related commerce, including river guides operating on the McKenzie River, was not included since impacts to this recreational industry was not identified. Several businesses, including river guides, lodges, retail stores selling fishing licenses and gear, food marts, service stations and restaurants are located along the McKenzie River and cater to recreationists throughout the year. While other river-oriented recreational activities occur throughout the year, fly-fishing is limited to the Spring season. For some businesses, particularly river guides, revenue from fly-fishing during March, April and May, constitutes a major portion of their annual income. A portion of other recreation-related businesses' income also derives from the fly-fishing season.

Turbidity. Natural turbidity in the South Fork McKenzie River can exceed 300 NTUs during winter and spring storms. Turbidity has been delayed and sediments diluted in Cougar Lake, thus that since the construction of Cougar Dam, turbidity in the lower South Fork and the McKenzie River has not been as high during the winter and spring months as pre-dam conditions. Turbidity recorded in January 1990 at Goodpasture Bridge exceeded 13 NTUs. Had Cougar/Blue reservoirs not been in place, the turbidity would have been much higher. Prior to the dam, high turbidity events would have cleared quickly from the McKenzie system. Over the last 40 years one of the impacts of the dam has been to dampen these high turbidity events. The dam causes turbidity downstream from these events to be lower and spread over a longer period.

Oregon chub. In the fall of 2000 a viable population of Oregon chub, listed as endangered under the Endangered Species Act, was discovered in the lower McKenzie River near Springfield, Oregon. In addition, a small population of Oregon chub was discovered in the Mohawk River, a tributary of the McKenzie, known to contain agricultural runoff. An amendment to the BA will be prepared to address this discovery, and consultation with USFWS will occur as necessary.

DDT. In February 1996, 12 surface grab sediment samples were submitted for physical analysis and chemical analyses. These samples were collected, from within the reservoir, at the 1,400 feet contour near the intake structure and diversion tunnel and several upstream locations. No organic contaminants were detected above method detection levels (MDL). Although the 1996 sampling of reservoir sediments found no DDT, this pesticide was sprayed throughout the watershed (1949-1951) and still remains in surrounding forest duff and soil. DDT was banned in 1972. In 2002 eight water samples were taken between mid-May and mid-June during a range of turbidities. No contaminants were detected above established EPA concern levels (EPA, 1986) in any sample. A trace of DDT was detected in this sample at 0.000599 ug/L, which was also not confirmed in the duplicate sample. The lack of detection of these parameters in the duplicate sample lends credence to the view that, if the chemicals were in the sample, they were there in very low concentrations. This is below the EPA freshwater acute (1.1 ug/L) and chronic (0.0001 ug/L) water quality criteria for DDT.

As a result of questions raised about potential contaminate levels in the turbidity and possible sediment releases, 12 surface sediment samples, targeting fine-grained sediment and organic material, were collected in June 2002. These samples were collected to target fine-grain and organic material that had been eroded during the drawdown, with one sample to represent lakebed sediments exposed after the drawdown event. All samples were submitted for physical parameters including total volatile solids and five samples were chemically analyzed for heavy

metals (nine inorganic), total organic carbon, pesticides and polychlorinated biphenyls (PCBs), phenols, phthalates, miscellaneous extractables and polynuclear aromatic hydrocarbons (PAHs).

No PCBs were found at the Method Detection Limit (MDL) in any of the five June samples. No pesticides (except DDT and derivatives) were found at the MDL in any of the samples.

The following stations were tested for DDT and its breakdown components, DDE and DDD (expressed as Σ DDT) (with corresponding levels as indicated): two samples were collected from East Fork cut banks (Σ DDT @ 8.5 and 32.6 ppb), one sample below the Slide Creek boat ramp, from a cut bank area (Σ DDT @ 23.9 ppb), one sample from the Annie Creek delta (Σ DDT @ 18.6 ppb), and one sample was collected from lake deposits near the face of the dam on the Rush Creek side (Σ DDT @ 5.3 ppb).

Fifteen additional samples were collected in August 2002 and analyzed for physical properties, total organic carbon (TOC) and Σ DDT. Two background samples were collected from the South Fork of the McKenzie above the reservoir (no Σ DDT detected, less than 2.6 percent fines); three vertical profile samples from the cut-bank areas where only the fine-grained sediment was targeted in June (7.27, 7.11 and 17.65 parts per billion [ppb]); five surface composite sediment samples collected from the reservoir to represent the recently eroded and homogenized sediment during the drawdown event (non-detect [ND] @ 0.7 ppb detection level), 1.08, 4.77, 6.19 and 25.87 ppb). Each of these five samples analyzed were a composite of two to three surface grabs from a designated area of the reservoir; two surface samples from the McKenzie River, downstream of the dam (both ND @ less than 0.7 ppb) in slack water areas, where Σ DDT might have been deposited, if it had migrated beyond the confines of the reservoir. One upland station was sampled on a logging road cut bank. Samples represented the surface to 6-inch depth and 6-12 inch depth of forest floor debris (Σ DDT @ 374.6 ppb top 6 inches) and (Σ DDT @ 36.9 ppb 6-12 inch depth). (For more details see Appendix B of the SIR).

It is likely that some floating organic debris (fir needles, twigs, etc.), binding DDT, was released from the reservoir during the initial drawdown, but this material was likely distributed over a very large area, and not measurable nor posing any significant exposure to organisms, due to the wide distribution of this material. Because Σ DDT is hydrophobic (little affinity for water) it will tend to remain bound to the organic material and not be released to the water column. (See SIR, Appendix B.)

5. Environmental Effects. The presence of turbidity and possible effects of turbidity, including sediment settling, in the South Fork and mainstem McKenzie Rivers were analyzed in regards to fish, spawning gravel and macroinvertebrates (insects). Effects of turbidity on esthetics, the Spring trout fishing season, and treatment of drinking water was also considered. No detectable DDT was found in sediment samples taken below Cougar Dam. A no effect determination has been made for Oregon chub.

Effects of Turbidity. The impact of turbidity on water quality was mainly related to esthetics. The turbid water below the project during April through May was unusual for this time of year, at least for the last 40 years since the project was built, and was esthetically displeasing. Contaminants analysis revealed that no water quality criteria were violated for any contaminant of concern, including metals, PAHs, organochlorinated pesticides, chlorinated herbicides, and organophosphorus pesticides. Oxygen, temperature, pH and conductivity levels were within normal limits. Particles in the water contributing to the turbidity were mostly clay-sized that remain in suspension for a long time. State turbidity standards were exceeded; however, this was

expected to occur for the South Fork. Oregon Department of Environmental Quality (ODEQ) provided a list of reporting and management requirements should turbidity be visible in the mainstem McKenzie. The Corps has complied with the State's requirements.

Drawdown of Cougar Reservoir below its normal minimum pool level of 1,532 feet to the construction pool level of 1,400 feet resulted in substantial erosion of unvegetated soil surrounding the pool. The major tributary drainage streams flowing into the reservoir, the South Fork McKenzie, East Fork McKenzie, and Walker Creek, re-established channels to the lower pool at the 1,400 foot level. These processes transported large amounts of sediment into the newly created lower pool area at 1,400 feet. Detention time in the construction pool was sufficient to allow the bulk of the coarser grained sediment mass to settle out. Much of the fine-grained sediment mass (silt-clay fraction, grain size smaller than 62 microns) was released from the reservoir during the period from April 1 to May 25, 2002 when the pool level reached 1,400 feet. The fine grained material released from the reservoir caused extended elevated turbidity in the South Fork McKenzie to the confluence and into the mainstem McKenzie Rivers. Visual observation of the South Fork McKenzie River gravel bed below Cougar Reservoir and of the mainstem McKenzie River below its confluence with the South Fork indicated the presence of a thin layer of silty material following the sustained releases of highly turbid water from Cougar Reservoir. This material did not accumulate on the surface of the gravel bed but was flushed through the system during subsequent high flows. In addition, some of the fine sediment in suspension accumulated in the algae covering the gravel bed, changing the color of the algae from green to gray.

In 2003, it is proposed that the reservoir elevation be held as close to 1,400 feet as possible, and that a reservoir drawdown rate of 6 feet per day be used to accomplish and maintain this. The impact of this operation on turbidity during late spring storm events will depend on pool elevation. If the pool is successfully maintained at elevation 1,400 feet, turbidity will be higher because there is less volume to dilute the suspended sediment, but the turbid water will clear more quickly because of a reduced retention time. If the lake elevation is higher, the turbidity may be less but clearing of the pool will take longer. The drawdown rate of 6 feet per day will help to clear the reservoir of turbid water faster than the slower drawdown rate of 3 feet per day did in 2002. Spring storms could still result in increased turbidity below the dam but the turbidity will be of shorter duration.

The Corps has maintained the residual pool at (or close to) 1,400 feet since May 2002. A December rainstorm increased incoming flows and turbidity, resulting in the pool rising to 1,411 feet, and releases of turbidity up to 200 NTUs on December 30. Incoming turbidity in the South Fork reached 24 NTUs late on the 29th of December, thus the downstream turbidity was a about 10-fold increase, as originally predicted. Turbidity at Hayden Bridge rose to 24 NTUs during that storm. (Average for December was 3.72 NTUs at Hayden Bridge.) (EWEB, pers. comm. Jan. 2003) The Corps was able to draw the reservoir back to 1,400 feet by January 1, 2003. Another rain event elevated the pool to 1413 on January 5; however turbidity remained below 120 NTUs and dropped below 10 NTUs by January 8. Turbidity in January has not exceeded 120 NTUs, and generally has been between 55 NTUs and 3 NTUs (as of January 22, 2003). Thus the Corps expects that turbidity in the Spring of 2003, and 2004, will be greatly reduced from the 2002 levels.

DDT in Sediment. Total DDT was exposed in cutbank areas within the reservoir, which eroded into the post-drawdown 1,400 foot pool, but was not measurable downstream of the dam. Total

DDT levels detected within the 1,400 foot pool were 4.8, 6.2, 1.1, ND @ less than 0.6, and 25.9 ug/kg (ppb). Further erosion will occur within the pool, but will likely be less than the original drawdown event and will therefore not create further risk downstream. The sediments within the reservoir will be further redistributed with upcoming winter and spring events. Monitoring after the final deposition and distribution within the reservoir would be warranted to determine if natural attenuation will sufficiently isolate the Σ DDT from potential uptake by benthic organisms.

Four of five sediment samples collected within the reservoir did not detect Σ DDT above levels of concern. Sediment will continue to be deposited onto the reservoir bottom. The current area, within the reservoir, where Σ DDT exceeds reference levels of concern, is limited and will likely change with future deposits. This area should be continually monitored, as should the area below the dam.

No Σ DDT, at MDLs, was detected in sediment samples collected below Cougar Reservoir. A no effect determination has been made for this area.

Spawning Gravel. Results of core samples taken of the spawning gravels in the South Fork McKenzie River below Cougar Reservoir and in the mainstem McKenzie River showed higher accumulation of fine sediments in the samples in the South Fork McKenzie than was present in the samples from the mainstem McKenzie River. Further analysis of the mainstem McKenzie River samples did not find clear evidence of Cougar Reservoir sediments based on the clay mineralogy (Stewart et al., 2002). These results suggest that relatively little of the sediment discharge from Cougar Reservoir settled in any one location in the mainstem McKenzie, though as discussed above, a fine dusting of deposited material was evidenced. The analysis by Stewart et al. (2002) also cannot ascertain when sediments were deposited below Cougar Dam. They may have accumulated over the 40 year time period in which the reservoir has been in place.

While accumulation of fine sediment has occurred below Cougar Dam over an unknown time period, the high turbidity events during Spring 2002 were unlikely to have had long-term negative impacts on spawning gravel quality below Cougar Dam. However, assessment will be made of the rate of fine sediment accumulation in gravel areas during future storm events over the winter of 2002-2003 to aid in better understanding the dynamics of fine sediment transport and deposition, and its effects on habitat.

Macroinvertebrates. The abundance of organisms, species diversity, and presence of species sensitive to high levels of turbidity that were found in aquatic macroinvertebrate samples collected from areas located downstream of Cougar Dam indicated that this area was not heavily impacted by the relatively high turbidity events of spring 2002. Analysis indicated that the macroinvertebrate community below the dam was degraded in comparison to the community located above the reservoir. However, this is not unusual for areas located below dams, and this trend was also indicated in samples collected during 2000 and 2001 prior to drawdown of Cougar Reservoir (SIR, Figure 5). Indexes of biotic and habitat integrity (Wisseman 1996) ranged from moderate to low integrity for sampling stations located downstream of Cougar Dam.

Fisheries. The high turbidity events of spring 2002 had only minor, transient, impacts on fishes directly and relatively little effect on their habitat. Application of a scoring system developed by Newcombe and Jensen (1996) for relating magnitude (i.e., concentrations) and duration of suspended sediment events to effects on salmonids resulted in scores (z) ranging from 6 to 8 for

levels of turbidity occurring directly below Cougar Dam. These scores indicate that impacts to salmonids in the South Fork McKenzie River resulting from the high turbidity events of spring 2002 may have ranged from moderate physiological stress ($z=6$) to reduction in feeding rate ($z=8$) during the period of high turbidities. No mortalities, however, ($z\geq 10$) were indicated.

Assessments of condition for multiple fish species sampled both from below Cougar Dam and from within the residual pool above the dam by ODFW biologists and pathologists failed to detect health-related problems and documented that most fishes sampled were actively feeding and in good condition.

Socio/Economic. The 2002 Cougar drawdown had a negative effect on trout fly-fishing on the McKenzie River that was not anticipated or evaluated in the FR/EIS. On April 1, the Corps started drawing down Cougar Reservoir in order to install a multi-level intake tower, which would release water into the river at temperatures appropriate for threatened species of fish. That sent accumulations of clay into the river and turned it a brownish-gray color. The turbidity levels went up significantly. Then, on May 26, the Corps stopped drawing down the reservoir. According to the *Springfield News*, by June 12 the turbidity had dropped significantly. The *Springfield News* also noted that one of the fishing guides reported staying away from the river from April 14 until June 5. The guide indicated that while the McKenzie was not back to its typical clarity by that time, the fishing was good and the river was getting near record runs of steelhead and salmon.

The turbidity problem affected fishing guides, lodges, motels, gas stations, restaurants, and small grocery stores, according to the Convention and Visitors Association of Lane County (CVALCO). CVALCO, the McKenzie River Chamber of Commerce, and the river guides association mailed out a survey to lodge owners and other local business owners. It was called “Cougar Reservoir Draw-Down Economic Impact Survey” and included questions about type of business, comparative gross revenues from 1999 to 2002 (or, change in gross revenues), customer counts (1999 to 2002), and cancellations or other declines in business attributable to turbidity of the McKenzie River or other Cougar Reservoir draw-down-related factors.

A news release from the McKenzie River Chamber of Commerce and the Convention and Visitors Association of Lane County summarized the results of the survey, as follows. “During March, April and May, area businesses reported 301 cancellations, resulting in lost revenues of \$88,656. Most of the losses were reported by river guides, with \$15,000 to \$16,000 of lost revenue reported by lodging, retail and other business owners. Customer counts dropped by 445, from 1,723. Guide-related revenues were down \$48,712 compared to the same time last year. Other survey respondents noted that poor river conditions resulted in a lower call volume with fewer bookings. A total of 27 businesses responded to the survey reflecting only a partial sampling of the overall impacts.”

Locals indicate that these impacts have been difficult, particularly for smaller businesses that are very dependent on the summer tourism season. Some of the businesses operate near capacity for a relatively short season, and don’t have the capacity to make up for early losses later in the season. There is local concern that if the same impact recurs over the next few years, there will be more lasting damage to the local tourism economy.

EWEB. Eugene Water and Electric Board manages the municipal water supply for Eugene and Springfield. The intake for the water supply plant withdraws from the McKenzie River near

Hayden Bridge, 49 miles downstream from Cougar Dam. EWEB tested for several water quality parameters related to construction at Cougar Project. During the drawdown, turbidity fluctuated between 2 and 26 NTUs. The average turbidity recorded at Hayden Bridge during the 2 month period (April and May 2002) was 10.3 NTUs compared to 2.6 NTUs for the same time period in 2001. Based on treatment plant criteria, additional chlorine was used when the river water exceeded 3.0 NTUs. The additional turbidity needed a slightly higher alum dosage (about 2 mg/l), additional lime for pH adjustment and substantially more backwash water (with corollary return to the river) during the drawdown. Subsequent to the drawdown period, EWEB tested sludge for presence of DDT and found neither DDT nor any breakdown products. EWEB did have concerns that, should turbidity exceed 3.0 NTUs during high demand summer months, they would not have the capacity to do extra filtration to meet that demand. The Corps agreed to hold Blue River Reservoir full and release additional flow late in the summer season to dilute turbidity in the McKenzie. This action was not necessary in 2002.

6. Compliance with Clean Water Act. The ODEQ reviewed both the 1995 EIS and the 1999 EA/Section 404 Evaluations. ODEQ's comments in 1999 were that the potential of the project to produce long-term, identifiable benefits to the fisheries resource through temperature modification appeared to outweigh any short-term effects of turbidity. Should turbidity during construction be visible in the McKenzie River, the reason must be determined and BMPs implemented to solve the problem and minimize the impacts. A log of storm events and river conditions should be maintained and problem events reported to ODEQ. These requirements have been followed by the Corps.

Turbidity refers to water clarity. It is measured in Nephelometric Turbidity Units (NTUs), which indicate how light passes through (or reflects on) suspended sediment in the water column. State standards for turbidity (OAR 340-041-0445(2)(c)) are no more than a 10 percent cumulative increase in natural stream turbidities as measured relative to a control point immediately upstream of the turbidity causing disturbance. However, limited duration activities necessary to accommodate essential dredging, construction or other legitimate activities may be authorized provided all practicable turbidity control techniques have been applied and permit or certification authorized under terms of Section 401 or 404 of the Clean Water Act.

ODEQ is a participating member of the Environmental Coordinating Committee. As such, ODEQ has been advised of all water quality situations that developed during construction of the WTC facilities at Cougar Dam. This coordination will continue during the remaining construction, and post-construction monitoring.

7. Endangered Species Act. The biological assessment previously prepared is being amended to include the Oregon chub, found in 200 to inhabit the McKenzie River near Springfield. The Corps has made a determination of no effect.

8. Evaluation/Mitigation. The situation regarding turbidity and sediment has been evaluated as described above. While turbidity during the 2002 drawdown exceeded predictions in the mainstem McKenzie River, levels were not unusual for historic late winter-early spring flood events. The drawdown did occur later in the Spring than predicted, making turbidity more noticeable and interfering with the trout fly-fishing season. The Corps stopped the drawdown at 1,400 feet elevation, instead of continuing to lower the pool to 1,375 as originally proposed, and the water cleared to less than 15 NTUs by June 15.

This situation can be mitigated during the remaining 2 years of construction by operating the reservoir at 1,400 foot elevation year-round to the extent possible. Levels exceeding 1,400 feet will be drawn down at the rate of 6 feet/day instead of the previous 3 feet/day. This should allow the reservoir to be at 1,400 feet by March 1, and returned to 1,400 feet more quickly if there is a major Spring storm. Turbidity measurements during November through January indicate that the present management of the residual pool is meeting expectations of lower turbidity. Turbidity will continue to be monitored during construction years.

DDT was not detected in sediments below Cougar Reservoir. Monitoring will continue during construction years.

Deposition of fines and insect occurrence were evaluated during the summer/fall of 2002. While accumulation of fine sediment has occurred below Cougar Dam over an unknown time period, the high turbidity events during Spring 2002 were unlikely to have had long-term negative impacts on spawning gravel quality below Cougar Dam. Analysis indicated that the macroinvertebrate community below the dam was degraded in comparison to the community located above the reservoir. However, this is not unusual for areas located below dams, and this trend was also indicated in samples collected during 2000 and 2001 prior to drawdown of Cougar Reservoir

Income losses in 2002 due to reduction of trout fly-fishing and associated expenditures were evaluated by the Convention and Visitors Association of Lane County (CVALCO). Legislative action may provide some mitigation for these losses.

Actions by EWEB due to turbidity in municipal water supply intake have been described. Additional filtering was required during the Spring, but not during Summer months. Water is available from Blue River Reservoir to dilute turbidity in summer months should this become a problem.

9. Significance. Effects of turbidity in the South Fork of the McKenzie and the McKenzie mainstem during construction drawdown of 2002 were primarily local and esthetic. There are no indications that fish or aquatic invertebrates were adversely affected. Fishing later in the season was quite good (Stahlberg, 2002.) Fall spawning in the South Fork noticeably increased in 2002 due to river water approaching pre-dam levels, a strong indicator that the purpose of the temperature control project will be achieved. Total spring chinook redds below Cougar Dam increased from 61 in 2001 to 108 in 2002. This increase occurred below USFS Road 19, about 2.4 miles below the dam; above the bridge there was a decrease in redds from 44 in 2001 to 24 in 2002. This was a good year for spring chinook, thus all of the increase is not necessarily due to the restoration of normal stream temperatures (ODFW, pers. comm. 2003).

There was an unexpected financial impact on the local economy. Interference with spring trout fly-fishing was not anticipated. According to CVALCO, local residents and businesses reported losses totaling about \$88,656. While this may have caused temporary hardship for local residents, it is not regionally or nationally significant, given that the 2002 Oregon Employment Department Regional Economic Profile indicates that the Eugene MSA (Lane County) had a 2000 population of 323,950 people, with a per capita income of \$25,584, resulting in total income of approximately \$8.3 billion dollars in the regional area. Were these losses an underestimate, even doubled the losses would not be regionally significant. Recompense is a possibility via legislative action. The local and regional economy also benefited from

construction related expenditures, although no estimate of that benefit is available. With changes in operation of Cougar Reservoir during the remaining construction years, interference with trout fly-fishing season and subsequent economic loss is not expected to re-occur or be as pronounced as in 2002. Heavy spring storms, however, could still result in turbid conditions.

10. I have determined that the proposed action would have no significant impact on the environment and that an environmental impact statement is not required. With this action I am amending the environmental assessment for the Cougar Lake Intake Structure Modifications, Lane County, Oregon.

Date _____

RICHARD W. HOBERNICHT
Colonel, EN
Commanding

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